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PERCEPTION OF TONEMICITY IN STANDARD SLOVENE

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SUMMARY

According to the current Slovene Orthography (Slovenski pravopis, 2001) and the Standard Slovene Dictionary (Slovar slovenskega knjižnega jezika, 1995), the Standard Slovene language is characterized not only by the dynamic but also by the so-called tonemic word accentuation (or intonation rather), also referred to as 'pitch accent'. Features of this 'tonemicity' of certain Slovene dialects were first discussed already in the 19th century (Škrabec, 1870, Valjavec, 1878–95), further analyzed in detail by Toporišič (1978, 2000) and discussed more recently also by Srebot Rejec (2000).

The tonemic accent is very difficult to acquire in the process of education because it requires the capacity of distinguishing between different pitch levels and pitch movements. As a rule, tonemicity is only acquired by Slovene speakers spontaneously and unconsciously in the process of language acquisition, of course only in those Slovene dialectal areas in which this accent exists.

The paper presents the results of three surveys testing Slovene native speakers' perception of tonemic and non-tonemic intonation, taking into account the subjects' dialectal origin. We tested the 'acceptability' of tonemic intonation as an element of spoken Slovene used in public presentations, in affirmative sentences (all three surveys) and in yes-no questions (two surveys only), because tonemic accent is necessarily influenced by sentence intonation. In addition to this, we tested the level of acceptability of intentionally incorrect intonation of individual lexical items within intonation units, in particular using the so-called 'low-pitched' accent in those lexical items that should be 'high-pitched' both in tonemic and non-tonemic dialects.

Key words: *tonemicity, tone languages, intonation, perception of intonation, the Slovene language, the standard language*

1 THE SURVEYS: METHODOLOGICAL CONSIDERATIONS

In the period between May 2002 and October 2004 we carried out three surveys with students of Slovene Language and Literature of the Faculty of Arts in Ljubljana. While the aim of all surveys was the same, i.e. to obtain students' response regarding the appropriateness of tonemic intonation in Slovene used in public addresses, the number of students, the types of utterances and the scoring system differed in the three surveys. Thus the numbers of students participating in the surveys varied considerably: there were 56 students for the 1st survey, only 27 for the second (all of them being previously instructed about tonemicity in Slovene), and 105 for the third. The utterances which students were exposed to were both affirmative and interrogative for the first two surveys, while for the third survey we decided to restrict ourselves to statements. Also the students' scoring of the recorded utterances was simplified for the 3rd survey: while the scale of acceptability for the first two surveys consisted of seven marks (from 1 – the least acceptable to 7 – the most acceptable), we decided for the 3rd survey on what students are more used to – that is the 'school marking' system of 1-5.

2 THE QUESTIONNAIRE

For the 3rd survey only, we introduced a questionnaire in order to establish:

- a) the subjects' origin in terms of their local dialect,
- b) the subjects' attitudes with regard to standard language, and
- c) the subjects' attitudes to non-standard (social and regional) dialects.

Although it can be assumed that all students had a certain level of knowledge about tonemicity in Slovene (obtained in various classes during their present studies and pre-university education), we made no effort to provide any additional instructions for this particular testing.

2.1 The dialectal background of the subjects The subjects (105) were 1st year students of Slovene, 96 of these from Slovenia, 3 from other countries, and 6 of unknown origin (i.e. did not answer the question).

Concerning their appertaining to areas of tonemic and non-tonemic Slovene dialects, the distribution of the subjects was quite fortunate:

1. Subjects from Arcas with Tonemic Slovene:	49 (46%)
2. Subjects from Arcas with Non-tonemic Slovene:	47 (44.5%)
3. Subjects from Abroad (with Slovene as their second language)	3 (4%)
4. Subjects of Unknown Origin (no answer)	6 (5.5%)

45 % of the subjects never moved either alone or with their families from their birthplace to another part of the country, while 55 % of them have moved, but none of them for more than 5 years, so that the influence of their secondary place of residence can probably be neglected, except for their current studying in the capital city, which is briefly discussed below.

The geographic distribution of the subjects of the 3rd survey can be seen in Figure 1 below:



Figure 1. Origins of the subjects in the 3rd survey.
Slika 1. Podrijetlo ispitanika iz trećeg istraživanja.

With regard to the dialectal origins of the subjects, the distribution is as follows:

Ljubljana and vicinity of the capital:	17
Upper Carniola:	33
Lower Carniola:	13
Inner Carniola:	11
Central Savinja area:	10
Northern Bela Krajina:	7
Southern Pohorje:	4
Horjul:	3
Mežica:	3
Prekija:	3
Prekmurje:	3
Littoral area (Slovene Istria):	2
Kočevje:	2
Karst	2
Slovenske Gorice:	1

Other countries: Austria 1, Poland 1, Hungary (Porabje) 1.

The subjects' daily contact with and exposure to standard Slovene is, of course, an important factor contributing to their perception of tonemicity. Since the dialectal and historical basis of Standard Slovene was (and remains) the speech of the people living in the capital city of Slovenia, it should be pointed out that in addition to the 17 subjects living in Ljubljana (18%), 53 of them (55%), while coming from other parts of Slovenia, spend between 4 and 5 days of the week in the capital, where they study.

2.2 The subjects' attitudes with regard to Standard and Non-standard Slovene Dialects

Concerning the subjects' speech in daily, informal contacts with family members at home and friends (in particular those from their own dialectal area in comparison with those from other areas, e.g. their friends at the faculty) it is clear from the answers that within the family a great majority of the subjects speak their local dialect (68%, plus 23% - those who specifically expressed that their local dialect was the speech of Ljubljana), while only 3.5% claim that they speak 'Standard Slovene', and 2% try to speak an adapted form of 'Standard Slovene', i.e. a kind of 'Standard Colloquial' dialect. The three remaining speakers (3.5%) are those from abroad, and of course speak Polish, Hungarian and German, respectively.

The situation is markedly different when they converse with friends: the percentage of those speaking in their local dialect is 38.5% (plus 20% of those who speak the 'Ljubljana dialect'); 17% of the subjects switch to 'Standard Colloquial'. 7.5% (while using their local dialect) claim that they replace the 'markedly dialectal expressions' with those of Standard, 4.5% claim (in a similar manner) that they 'adapt their speech' to make it acceptable to their friends, and 5% claim to speak 'Standard Slovene'.

Answering a question concerning the importance of Standard Slovene in public addresses and specifically in formal situations such as news reading on radio and television, 95% of the subjects find it important that the dialect spoken should be Standard Slovene. Only 1 subject did not think this was important, 1 pointed out that this depends on the type of the program, 1 wrote specifically that this depends on whether it is the national radio and television or some local channel, and 1 that it depends on how much a certain local dialect differs from the standard.

The most surprising, however, were the answers to the question whether the subjects found certain dialects 'more beautiful or uglier' than others. As many as 65% of the subjects expressed an 'aesthetic view' on various Slovene regional dialects, believing for example that the Littoral dialects are nicer than others (26%), that the dialects of Prekmurje are 'ugly' or 'difficult to understand' (13.5%), and that the dialect of Ljubljana is 'ugly' (11%). Only 35% of the

subjects held the democratic (and scientifically sound) view of 'all dialects being equal' in this regard.

3. ACCEPTABILITY OF TONEMIC INTONATION AS AN ELEMENT OF SLOVENE USED IN PUBLIC ORAL DISCOURSE

The main part of all three surveys was the perception test, based on a similar study conveyed for Croatian by Škarić and Lazić (2002). The aim of the test was basically to examine the attitudes of the subjects with regard to tonemicity in standard Slovene, when applied in public addresses such as news reading on radio and television. At the same time, we wanted to check the awareness of the subjects of Slovene tonemicity, i.e. to see, in particular, whether they perceived 'misplaced' marked tonemicity (the marked acute used instead of the unmarked circumflex) in statements and yes-no questions.

It should be pointed out that in statements the acute (marked below as A) is realized as a rising-falling tone, and is (at least to a sensitive ear of a tonemic speaker) perceived as completely unacceptable in those words which should be pronounced with the unmarked circumflex. It can probably only be heard from some non-tonemic speakers trying to adopt the 'pitch' accent, applying it both to those words which are and those which are not characterized by this particular tone; this is therefore an example of hypercorrection.

On the other hand, when the circumflex (marked below as C), which is realized in statements as a falling tone, is used instead of the acute, this is seldom noticed by tonemic speakers, since such replacements can often be observed in their own speech, possibly due to the influence of sentence intonation and some general trend towards the levelling of the two tones in the direction of a simple fall. This shows, of course, that the circumflex is the default ('unmarked') tone, while the acute is the 'marked' tone.

In yes-no questions, when the intended sentence intonation is a rise rather than a fall, the acute is realized as a distinctly rising tone (that is with a considerable difference in pitch levels of the nuclear and the post-nuclear syllables), while the circumflex could most convincingly be interpreted as a level tone, which, of course, is usually interpreted as a realization of rising sentence intonation, although, strictly speaking, level intonation is by definition neither a rise nor a fall.

The perception test was carried out by playing a set of recorded short sentences which the subjects had to mark (concerning what we simply termed as 'the overall intonation pattern') on a scale of 1-7 (first two tests) and 1-5 (the third test) respectively. The sentences were read by one of the authors, who is a phonetician and a tonemic speaker of Slovene, and has lived in Ljubljana since his birth.

Each of the recorded sentences contained one of the 8 Slovene phonemic vowels in the nuclear syllable. For each of the vowels a word was selected characterized by the acute tone, and one characterized by the circumflex. The

words were then used in short utterances in such a way that those with the acute was pronounced both with the acute and the circumflex (strictly speaking 'correctly' and 'incorrectly'), and the same was done with the circumflexed words. This means that (when the sentences were also used as questions) each word was realized in four different ways. The total number of utterances was thus 64 for the first two tests (2X4X8), and 32 (2X2X8) for the second, from which the questions were removed. The utterances were recorded in a random order. The whole set of the utterances is given in the Appendix.

The examples in Figures 2 and 3 show the waveforms and the pitch patterns of a statement and a question, both realized once with the acute and once with the circumflex.

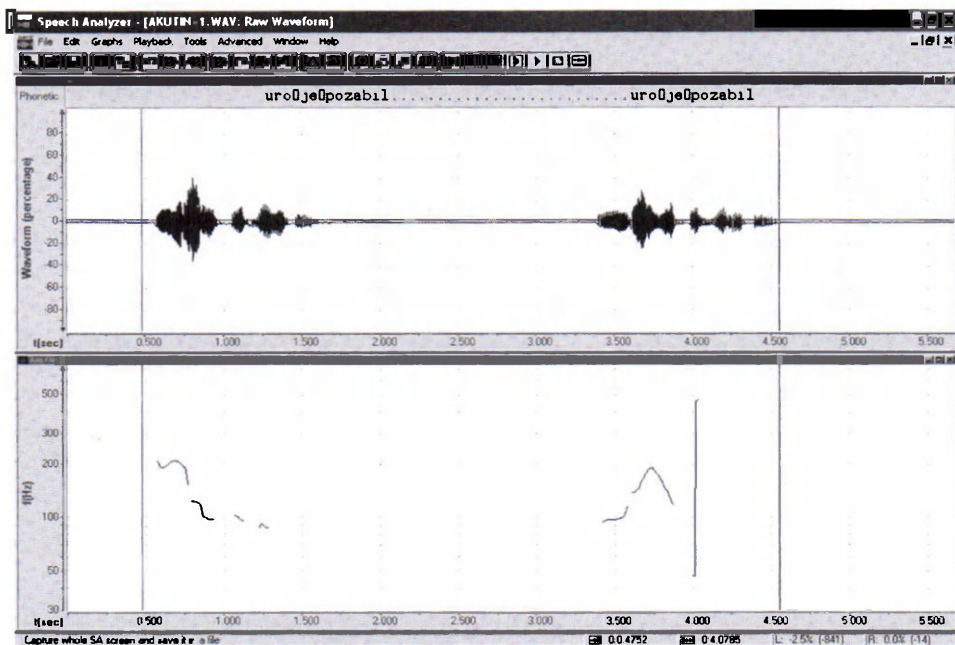


Figure 2.

The statement *URO je pozabil* (*He forgot the WATCH.*) with the circumflex (left) and the acute (right) on the nuclear word *URO*.

Slika 2.

Tvrdnja *URO je pozabil* (*SAT je zaboravio*) s cirkumfleksom (lijevo) i akutom (desno) u nukleusu *URO*.

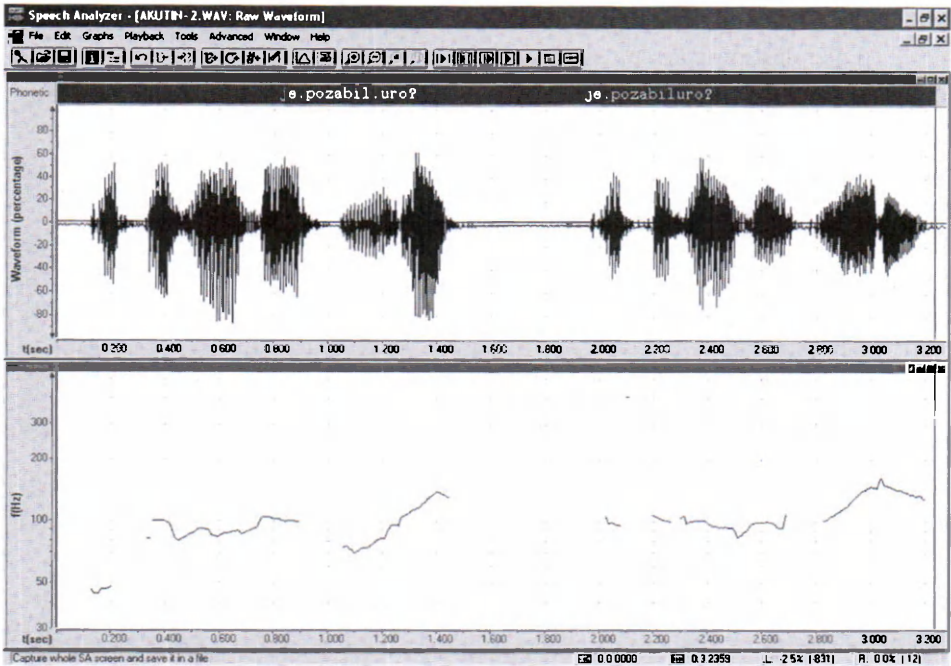


Figure 3. The question *Je pozabil URO?* (*Did he forget the WATCH?*) with the acute (left) and the circumflex (right) on the nuclear word *URO*.

Slika 3. Pitanje *Je pozabil URO?* (*Je li zaboravio SAT?*) s akutom (lijevo) i cirkumfleksom (desno) u nukleusu *URO*.

Both simplifications for the third test (the change of the scoring scale and the removal of questions) were introduced because after the first two tests we had an uncomfortable feeling that the task which the students were confronted with was simply too difficult, both in terms of number of sentences they had to evaluate and in terms of the scoring system. After all, we were only interested in whether the listeners would consider a particular intonation pattern 'acceptable' or 'unacceptable', so it could be argued that a simple binary decision might give us the most straightforward presentation of their attitudes towards tonemicity. We might try to convey yet another experiment of this kind in the future.

The results of the surveys are given in Tables 1-3 below. The symbols used in the tables mean the following:

- A+ = expected acute
- A- = unexpected acute
- C+ = expected circumflex
- C- = unexpected circumflex

The question mark means that the utterances with A or C were questions; there is no question mark for the utterances which were produced in the form of a statement.

Table 1. Results of 1st survey. Number of subjects: 56

Tablica 1. Rezultati prvog istraživanja. Broj ispitanika: 56

A+	A-	?A+	?A-	C+	C-	?C+	?C-
4.56	4.45	4.63	4.68	4.96	5.13	4.50	4.86

Table 2. Results of 2nd survey. Number of subjects: 27. Note: the group consisted of students who had previously been specifically instructed about the two tones in Standard Slovene.

Tablica 2. Rezultati drugog istraživanja. Broj ispitanika: 27. Napomena: ispitanici su studenti koji su prethodno bili poučeni o dva tona u standardnom slovenskom.

A+	A-	?A+	?A-	C+	C-	?C+	?C-
4.86	4.29	5.17	5.14	5.34	5.41	4.23	4.01

Table 3.1. Results of 3rd survey. Number of subjects: 106. The marking was reduced from 1-7 to 1-5 and only statements were recorded and evaluated.

Tablica 3.1. Rezultati trećeg istraživanja. Broj ispitanika: 106. Skala s rasponom od 1 do 7 reducirana je na skalu s rasponom od 1 do 5. Samo su tvrdnje snimljene i procijenjene.

A+	A-	?A+	?A-	C+	C-	?C+	?C-
3.2	3.1	-	-	3.8	4.1	-	-

After the standardization of results of the 3rd survey to the 1-7 scale, the marks were: 4.48/4.34/-/5.32/5.74 (Table 3.2).

Table 3.2. Results of 3rd survey. Number of subjects: 106.

Tablica 3.2. Rezultati trećeg istraživanja. Broj ispitanika: 106.

A+	A-	?A+	?A-	C+	C-	?C+	?C-
4.48	4.34	-	-	5.32	5.74	-	-

The average results of all surveys are compared below for the statements (Figure 4) and for the first two surveys for questions (Figure 5).

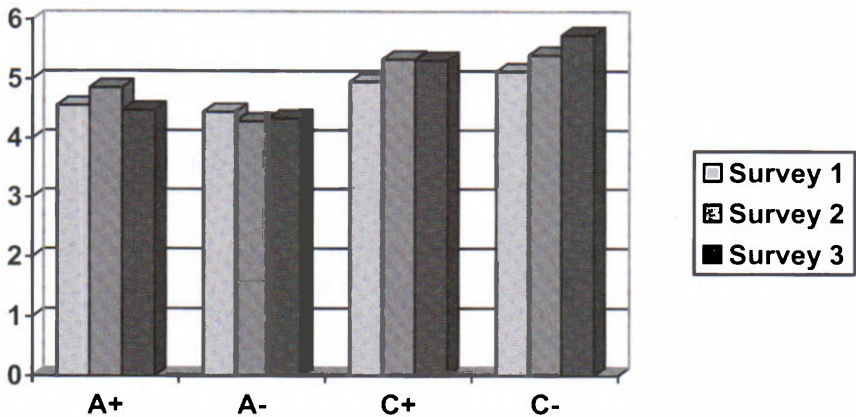


Figure 4. Marks for all three surveys, for statements
Slika 4. Ocjene za tvrdnje u sva tri istraživanja

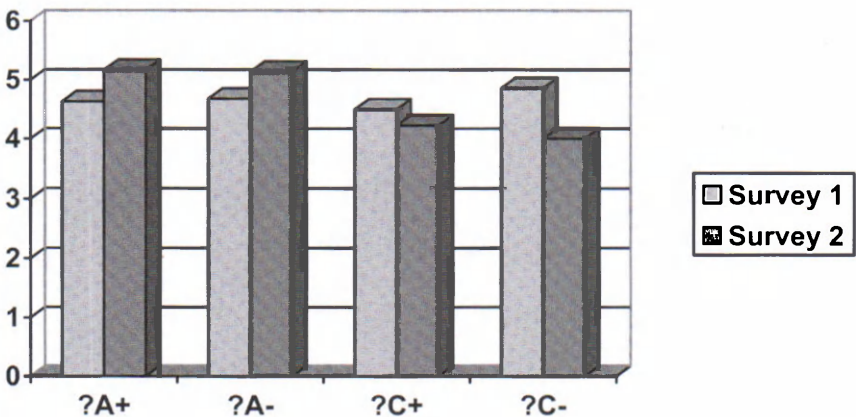


Figure 5. Marks for the first two surveys for interrogatives
Slika 5. Ocjene za upitne rečenice u prva dva istraživanja

4. CONCLUSIONS

Although the differences between all average results for the four types of realization are small, some generalizations can nevertheless be suggested:

1 The circumflex in statements is always marked better than the acute, regardless of its appropriateness, which we can express as: C+C->A+A-

2 'Inappropriate' circumflex in statements is even slightly better marked than 'appropriate' circumflex, thus: C->C+

3 There is a minimal difference in favour of 'appropriate' compared to 'inappropriate' acute in statements (except in the case of informed students, where the difference is quite considerable); therefore: A+>A-

4 The circumflex in questions (level intonation) has lower marks than in statements (falling intonation), and lower than the acute in questions (rising intonation). Both results can be attributed to the prototypical rising (sentence) intonation in yes-no questions:

?C+?C-<C+C-; ?C+?C-<?A+?A-

To conclude, our results seem to indicate that the selected population of (prevalingly) native speakers of Slovene exhibits a relatively low level of awareness of Slovene tonemicity, which probably, at least to some extent, results in their obvious disregard of tonemicity as an essential part of standard Slovene in terms of its usage in the media, such as radio and television.

Even the most persistent proponents of tonemicity as an important feature of standard Slovene would probably have to agree that it is increasingly difficult to insist on its status of an essential, let alone obligatory part of the standard. Not only because of the small functional load of the acute and the circumflex in terms of their minimal-pair distinctiveness (Toporišič, 1978) and the general weakening of speakers' awareness of it, but also due to the observed tendency of speakers on radio and television to avoid the marked pitch patterns of the acute in their presentations, opting for the generally acceptable 'neutral' falling pitch in statements and distinctly rising pitch in questions. The latter, of course, can no longer be viewed as a specific realization of 'pitch accent' but rather as a generally accepted sentence intonation pattern in (polite) yes-no questions.

APPENDIX: The sentences used for the surveys (marked only with the *expected* tonemic realizations and *underlined* nuclear word containing the vowel in question)

Vowel /i/

C Narisali so ga.

C? So ga narisali?

A Videli smo vas.

A? Ste nas videli?

Vowel /é/

A Vedli smo, da gre.

A? Ste to vedli?

C Vedno je tako.

C? Je vedno tako?

Vowel /ê/

A Mene je vprašal.

A? Mene je vprašal?

C Vera bo prišla.

C? Bo prišla Vera?

Schwa Vowel

A Vrnil se je.

A? Se je vrnil?

C Drsal boš lahko.

C? Boš lahko drsal?

Vowel /a/

A Sama bo šla.

A? Bo šla sama?

C Samo bo prišel.

C? Bo prišel Samo?

Vowel /u/

A Ruto je pozabila.

A? Je pozabila ruto?

C Uro je pozabil.

C? Je pozabil uro?

Vowel /ó/

A Moko je kupila.

A? Je kupila moko?

C Rože je kupila.

C? Je kupila rože?

Vowel /ô/

A Okno je odprl.

A? Je odprl okno?

C Grozno je bilo.

C? Je bilo res tako grozno?

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PERCEPCIJA TONEMIČNOSTI U STANDARDNOM SLOVENSKOM JEZIKU

SAŽETAK

Prema sadašnjem Slovenskom pravopisu i Rječniku standardnog slovenskog jezika, standardni slovenski jezik karakterizira ne samo dinamički, nego i tzv. tonski naglaskak riječi. Taj se naglasak vrko teško stječe u procesu školovanja jer zahtijeva sposobnost razlikovanja različitih visina i kretanja tona. U pravilu, tonemičnost spontano i nesvjesno usvajaju slovenski govornici u procesu usvajanja jezika.

U članku su prikazani rezultati triju ispitivanja u kojima se kod slovenskih govornika analizirala percepcija tonemske i netonemske intonacije, uzimajući u obzir njihovo dijalektalno podrijetlo. Ispitivali smo prihvatljivost tonemske intonacije kao elementa govorenog slovenskog jezika koji se koristi u javnom govoru, u potvrdnim rečenicama (sva tri ispitivanja) i da-ne odgovorima. Nadalje, ispitivali smo stupanj prihvatljivosti namjerno neispravne intonacije pojedinih riječi unutar intonacijskih jedinica, posebno koristeći tzv. naglasak niskog tona u onim riječima u kojima bi trebao biti naglasak visokog i u tonemskim i u netonemskim dijalektima.

Ispitanici su bili studenti slovenskog jezika pri filozofskom fakultetu u Ljubljani. Dok je cilj svih ispitivanja bio isti, tj. dobiti reakciju studenata s obzirom na prikladnost tonemske intonacije u javnim prezentacijama, broj studenata, vrste izričaja i sustav vrednovanja bili su različiti za sva tri ispitivanja. Izričaji su za prva dva ispitivanja bili potvrdni i upitni, dok smo se u trećem ispitivanju ograničili samo na izjavne rečenice. U trećem je ispitivanju bilo pojednostavljeno i ocjenjivanje snimljenih izričaja (s 1-7 na 1-5).

Samo za treće ispitivanje, dodali smo upitnik kako bismo kod studenata ustanovili:

- a) *podrijetlo s obzirom na njihov lokalni dijalekt*
- b) *stavove prema standardnom jeziku*
- c) *stavove prema nestandardnim dijalektima*

S obzirom na područja s tonemskim i netonemskim slovenskim dijalektima, raspodjela ispitanika bila je uravnotežena (46% ispitanika s područja tonemskog slovenskog i 44.5% s područja netonemskog slovenskog).

Što se tiče važnosti standardnog slovenskog u javnom govoru, za 95% ispitanika važno je da taj dijalekt bude standardni slovenski jezik, 65% ispitanika smatra da su pojedini dijalekti ljepši od ostalih te da su neki drugi dijalekti 'ružni' ili 'teško razumljivi'.

Glavni dio svih triju ispitivanja bio je test percepcije. Cilj je bio ustanoviti kakvi su stavovi ispitanika prema tonemičnosti u standardnom slovenskom jeziku primjenjene u javnom govoru kao što je čitanje vijesti na radiju ili televiziji. Istodobno smo htjeli provjeriti u kojoj su mjeri ispitanici svjesni slovenske tonemičnosti, tj. vidjeti zamjećuju li neispravno upotrijebljen tonski naglasak (akut upotrijebljen umjesto cirkumfleksa) u izjavnim rečenicama i da-ne odgovorima. Test percepcije vršen je reproduciranjem skupine kratkih snimljenih rečenica koje su ispitanici trebali ocijeniti na ljestvici od 1 do 7 (prva dva testa) i od 1 do 5 (treći test). Rečenice je čitao jedan od autora, koji je fonetičar i govornik tonemskog slovenskog jezika. Svaka je rečenica sadržavala jedan od osam slovenskih fonemskih vokala u nukleusu. Za svaki vokal odabrana je riječ s tonom akuta i jedna s tonom cirkumfleksa. Riječi su upotrijebljene u kratkim izričajima tako što su one s akutom izgovorene i s akutom i s cirkumfleksom te je isto učinjeno i s riječima s cirkumfleksom.

Iako su razlike među svim prosječnim rezultatima za četiri vrste izričaja male, mogu se izvući sljedeći opći zaključci:

1. Cirkumfleks u izjavnim rečenicama je uvijek ocijenjen boljim nego akut, bez obzira na primjerenost.
2. 'Neprijmereni' cirkumfleks u izjavnim rečenicama je čak nešto bolje ocijenjen nego 'primjereni' cirkumfleks.
3. Postoji minimalna razlika u korist 'prikladnog' u usporedbi s 'neprikladnim' akutom u izjavnim rečenicama (osim u slučaju grupe studenata koja je pohađala kolegij o tonemičnosti; kod njih postoji značajna razlika).
4. Cirkumfleks u pitanjima ima lošije ocjene nego u izjavnim rečenicama, i lošije nego akut u pitanjima. Oba rezultata mogu se pripisati tipičnoj uzlaznoj rečenničnoj intonaciji u da-ne pitanjima.

Naši rezultati upućuju na to da odabrana populacija govornika slovenskog jezika pokazuje razmjerno nizak stupanj svjesnosti tonemičnosti, što vjerojatno donekle rezultira njihovim zanemarivanjem tonemičnosti kao bitnog dijela standardnog slovenskog jezika u smislu njegovog korištenja u medijima. Smatramo da to uvelike otežava nastojanja da tonemičnost ima status obvezatnog dijela standardnog izgovora.

Ključne riječi: tonematičnost, tonski jezici, intonacija, percepcija intonacije, slovenski jezik, standardni jezik